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 CENTRAL INTELLIGENCE AGENCY
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 FOREIGN DOCUMENTS OR RADIO BROADCASTS

REPORT

50X1-HUM

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COUNTRY USSR

DATE OF
INFORMATION 1913 - 1950

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HOW

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books

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SUPPLEMENT TO
REPORT NO.

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SOURCE Newspapers, periodicals, and books as indicated.

TABLE ON RURAL ELECTRIFICATION IN THE USSR

The following table is a compilation of figures on rural electrification in the USSR between 1913 and 1950 taken from Soviet sources. It is designed to serve as a basis for future exploitation by FDD of this subject and to give an over-all picture of rural electrification in the USSR on the basis of foreign documents.

The table is divided into five main headings: (1) rural electric power installations, which include all rural electric power stations and connections to state power networks; (2) rural electric power stations, which include TES and GES; (3) connections to state power networks, including all installations which are connected to state power networks furnishing electricity to agriculture; (4) the number of electrified kolkhozes, sovkhozes, MTS, MTM (machine-tractor repair shops), and MRZ (machine-repair plants), and (5) the number of light bulbs, electric motors, and electric threshing machines in use in agriculture.

All documented figures are either taken as cited from the sources, in which case only the source is cited, or calculated on the basis of information contained in the sources. In the latter case the figures used as a basis for calculations are quoted in notes accompanying the sources to give the reader an opportunity to check the calculations. When there are conflicting figures from two different sources for the same subject and year, they are cited together. In making further calculations with conflicting figures, both figures were used if available evidence did not support one figure more than the other. However, if one figure was confirmed in a third source, the other was disregarded; or, if in making further calculations, one of the conflicting figures was used with one or more figures cited in the same source -- for example: Suppose source a states that the capacity of rural electric power installations in 1926 was 1,000 kilowatts, while source b gives 1,250 kilowatts. Source a states that the capacity in 1927 was 1,500 kilowatts, while source b gives no information for 1927 on this subject. In calculating the increase from 1926 to 1927, the 1926 figure from source a was used and the figure from source b disregarded, since the 1927 figure also comes from source a.

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The terms "over" and "planned" are used in the table as they appear in the sources. The term "about" is used when further calculations are based on an average between two figures.

Question marks have been placed after the 1949 figures for the capacity of rural electric power installations and rural electric power stations because, while the figures under these two headings between 1945 and 1950 check with some variations whether they are calculated horizontally or vertically, substantial discrepancies appear in the case of 1949. It is suggested that the figure for 1949 which is cited in the table "Increase in Capacities of Installations," in the footnote accompanying source f, is erroneous. Consequently, all figures which are based on it directly or indirectly are followed by a question mark.

Letters in parentheses refer to appended sources.

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RURAL ELECTRIFICATION

RURAL ELECTRIC POWER INSTALLATIONS							RURAL ELECTRIC POWER STATIONS						
(1)	NUMBER		CAPACITY (1,000 KW)		OUTPUT (MILLION KW-H)		NUMBER		TOTAL CAPACITY (1,000 KW)		TOTAL OUTPUT (MILLION KW-H)		
	TOTAL (2)	INCREASE (3)	TOTAL (4)	INCREASE (5)	TOTAL (6)	INCREASE (7)	TOTAL (8)	INCREASE (9)	TOTAL (10)	INCREASE (11)	TOTAL (12)	INCREASE (13)	
1913							NONE(A)						
1916			2(M)		1.2(M)		80(M)						
1917	100(M)		2.7(M)				A FEW(A)						
1918	}	864	16.6(M)	26.9	13.2(M)	}	140(A)	360	17.9(A)	16.1	5.86	}	
1919							450(M)						
1924							500(A)						
1925													
1926			29.6(11)		33.8(11)								
1927	1000- 3300(A, D)		29.6(M)		33.8(M)		694(M)		23.76(A)				
1928			36.4	61.2	}	}		40(A)	16.24	}	}		
1929													
1930													
1931			66		95(1)		1135(M)						
1932													

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RURAL ELECTRIC POWER STATIONS

T E S						G E S					
NUMBER		CAPACITY (1,000 KW)		OUTPUT (MILLION KW-H)		NUMBER		CAPACITY (1,000 KW)		OUTPUT (MILLION KW-H)	
TOTAL (14)	INCREASE (15)	TOTAL (16)	INCREASE (17)	TOTAL (18)	INCREASE (19)	TOTAL (20)	INCREASE (21)	TOTAL (22)	INCREASE (23)	TOTAL (24)	INCREASE (25)
NONE(A)						NONE(A)					

A FEW(A)

NONE(A)

7(1) 1.6(1)

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CONNECTIONS TO STATE POWER NETWORKS						ELECTRIFIED						IN USE IN AGRICULTURE			
NUMBER		CAPACITY (1,000 KW)		OUTPUT (MILLION KW-H)		KOLKHOZES		SOVKHOZES		MTS, MTM	MRZ	MOTORS		NUMBER OF THRESHING UNITS	
TOTAL	INCREASE	TOTAL	INCREASE	TOTAL	INCREASE	NUMBER	INCREASE	NUMBER	INCREASE	NUMBER	INCREASE	NUMBER OF LIGHT BULBS	NUMBER	CAPACITY (KW)	NUMBER OF THRESHING UNITS
(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)

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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1933		OVER 10000(r)										
1934												
1935						235						
1936		9700(r)								57.5		
1937			230(M)	209(r)	330(c)	7500(M)						
1938												
1939						95 TO 220						
1940	AT OUTBREAK OF WAR		275(D)	13.5(i)	AT OUT- BREAK OF WAR		10825(M)	OVER 7000(D)	137.5(r)			
					425(D, H)							
1941	11000(D) 13000(A, E)		AT OUT- BREAK OF WAR 275(E)		550(A, E)							
1942				12(i)								
1943		OVER -7333(i) -8666	189.9			234 TO 359	6322 TC 6524					
1944	3667 4334		200(i)	10.1(i)								
1945	100%(F)		269.7(i) 382.1(M)	69.7(i)			8024(r)	1500(D)	184(r)	36(D, r)		

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(14) (15) (16) (17) (18) (19) (20) (21) (22) (23) (24) (25)

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102.6(r)

34.9(r)

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60(1)

92(1)

5610

23.4

712

23.1

5755(1)

145(1)

768(1)

56(1)

6555(1)

900(a, 1) 126(r)

1369(r)

601(b, 1)

58(r)

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(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	
						10000(H)	25-30% OF ALL		25-30% OF ALL (H)							
137.5(r)						10000(D)	ABT 692(i)		2500(O, r)		67(i)					
86(r) } -51.5						10000(A, r)			3000 (A)		100000(A)	30000(i)				
						10700	700(i)		3060		60(i)					
							-5180				-811					
						5520(i)	123		70-75% OF ALL		2249(i)	309(i)				
						7942(r)	2422(i)				2928(r)	679(i)				
												9000(i) 85892(r) OVER 11845(r)				
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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1946	1348(r)		382(r)	112			10630(r) 10640	ABT 2611	247(r)	63(o, r)		
1947	179.28(r)		544(r) 525.7(m)	162	784(A)		13625(r) 13785	ABT 3070	329(r)	82(o, r)		
1948	225.88(r)		717(r)	173			17119- 17123	ABT 3416	434(r)	105(o, r)		
1949	265.78		975? 1152(r)	258			19681(r) 19690	ABT 2564	608(r) 579?	174(r) 110(o)		
1950	307.58(r)		PLANNED: 2300(c)	177			21004(r) 21007	ABT 1320	725(r)	117(r, o)		
1951												
1952												
1953												
1954												
1957						PLANNED 10000(r)						

• CONSOLIDATED KOLKHOZES

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(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
8180(r)	1525	160(r)	34			2450(r)	1080	87(r)	29		
10146(r)	1966	209(r)	49			3479(r)	1029	120(r)	33		
12298(r)	2152	265(r)	56			4821(r)	1342(1)	169(r)	49		
							PLANNED: OVER 2500				
13669(r)	1371	3352(r)	70?			6012(r)	1191	185(r)	16		
		423	158					244(r)	75?		
14794(r)	1125	485(r)	150?			6210(r)	198	240(r)	55		
			62								

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(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)
		135(r)	49			13064(r)	5122			3779	851	OVER 18790(r)		110370(r)	
		215(r)	81			18584(r)	5520			4664(r)	885	OVER 27970(r)		163195(r)	OVER 7000(:)
		283(r)	68			18949(r)	1168			5564(r)	900	OVER 38693		217993(r)	OVER 80000(:) PLANNED
		396(r)	84			20117(r) 30000(A)	6055			6245(r)	681	OVER 54025		296928(r)	
		427(r)	60			13819* 11640(K, H)		ALL(r)		6369(r) OVER 6800(A) ABOUT COM- PLETED	124	OVER 75000(a)		375176(r) 400000(a)	

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SOURCES

- a. Moscow, Geografiya v Shkole, No 2, Mar/Apr 52
- b. Frunze, Sovetskaya Kirgiziya, 16 Dec 50. Capacity of rural GES in 1950 was over 10 times greater than in 1940.
- c. Moscow, Sovetskaya Kniga, No 4, 1951
- d. Moscow, Voprosy Ekonomiki, No 5, May 52

The total capacity of rural electric power installations put in operation in 1945 was more than 5 times greater than the capacity of those put in operation in 1940. Taking the capacity of rural electric power stations put in operation in 1945 as 100 percent, then the capacities of those put in operation in 1946, 1947, 1948, 1949, and 1950 are 170, 228, 292, 309, and 323 percent, respectively.

- e. Geografiya v Shkole, No 5, Sep/Oct
- f. Moscow, Rol' elektrifikatsii v razvitii material'no-tekhnicheskoy bazy sel'skogo khozyaystva SSSR (Influence of Electrification on the Development of the Material and Technical Bases of Agriculture in the USSR), by S. Matskevich, 1952

Capacities of Rural Electric Power Installations
(in percent of total capacity)

	<u>1937</u>	<u>1940</u>	<u>1945</u>	<u>1946</u>	<u>1947</u>	<u>1948</u>	<u>1949</u>
Total	100	100	100	100	100	100	100
GES	11	12.7	21.6	22.5	22.1	23.6	25
TES	39	37.3	46.6	42	38.4	36.8	34.4
Connections to state power net- works	50	50	31.8	35.5	39.5	39.6	40.6

Progress of Electrification of Agriculture (in percent)

End of:	<u>1945</u>	<u>1946</u>	<u>1947</u>	<u>1948</u>	<u>1949</u>	<u>1950</u>
Number of electric motors in use	100	158.6	236.3	326.7	456.1	633.2
Their capacity	100	128.5	190	253.8	345.7	465.7
Number of light bulbs	100	138.3	197.5	263.3	370.8	436.8
Number of electrically driven threshing units	100	150	247.3	369	476.2	557.4
Number of kolkhozes electrified	100	164.5	234.0	238.6	250.3	174.0

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Increase in Number of Installations (in percent)

	<u>1945</u>	<u>1946</u>	<u>1947</u>	<u>1948</u>	<u>1949</u>	<u>1950</u>
Rural electric power installations	100	134	179.2	225.8	265.7	307.5
Including rural electric power stations	100	132.6	171.8	213.4	245.4	261.8
Of which:						
GES	100	179.6	254.1	252.2	439.8	453.6
TES	100	122.9	154.9	184.8	205.4	222.3

Increase in Capacities of Installations (in percent)

End of:	Rural Power Installations	<u>Rural Power Stations</u>		
		<u>Total</u>	<u>TES</u>	<u>GES</u>
1945	100	100	100	100
1946	141.7	134.7	128.1	179.6
1947	201.6	179.2	166.7	254.1
1948	265.9	236.2	210.8	352.2
1949	<u>361.4</u> ?	330.7	336.9	439.8
1950	427.0	394.0	385.6	453.6

Of the total capacity of rural electric power stations in 1945, 68 percent were TES and 32 percent GES.

g. Moscow, Elektrichestvo, No 11, Nov 52

h. Moscow, Itogi i Perspektivy Razvitiya Sovetskoy Energetiki (Summary and Outlook of the Development of Soviet Power Sources), by A. V. Vinter, 1950

i. Moscow, Narodnoye Khozyaystvo SSSR, Sbornik No 2, 1948

Over two-thirds of rural electric installations were destroyed by the Germans during World War II. The increase in the capacity of rural electric power installations in 1945 was more than 5 times the 1940 increase. In 1945, the increase in the number of electrified kolkhozes was more than 3.5 times greater and of electrified MTS more than 10 times greater than the increases achieved in 1940. It is planned to increase the capacity of rural electric power installations in 1950 almost up to 2 million kilowatts. It is also planned to have over 56,000 kolkhozes electrified.

k. Tashkent, Kommunist Tadzhikistana, 22 Nov 52

In November 1952, there were 97,000 consolidated kolkhozes in the USSR instead of 254,000 smaller ones on 1 January 1950.

l. Moscow, Gidrotekhnicheskoye Stroitel'stvo, No 11, Nov 52

m. Moscow, Leninsko-Stalinskaya Elektrifikatsiya SSSR (Lenin-Stalin Electrification of the USSR), by S. F. Shershov, 1951

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